

Disposition of Radioactivity 24 Hours Following Intravenous Bolus Administration of 4 mg/kg [¹⁴C]DTBBA to Male B6C3F₁/N Mice (Group D)^a

Dose Recovered in Excreta (%)

End of Collection Period (h)	Urine CPDE ^b	Cage Rinse CPDE	Feces CPDE	Volatile Organics CPDE	CO ₂ CPDE	GI Content	Total CPDE
4	0.00065 ± 0.00034	9.79 ± 14.39	–	0.0591 ± 0.0193	0.628 ± 0.233	–	10.5
8	1.42 ± 2.31	24.9 ± 12.9	–	0.101 ± 0.029	0.832 ± 0.224	–	27.2
12	2.09 ± 2.17	31.8 ± 11.8	–	0.124 ± 0.023	1.07 ± 0.24	–	35.1
24 ^c	3.22 ± 3.01	39.5 ± 11.3	38.0 ± 10.9	0.188 ± 0.028	2.05 ± 1.08	0.255 ± 0.086	84.5

Disposition in Tissues

Tissue	nmol-eq/g Mean	nmol-eq/g SD	TBR ^e Mean	TBR SD	Percent Recovery Mean	Percent Recovery SD
Blood ^d	0.166	0.102	unity	–	0.0904	0.0497
Adipose ^d	0.0329	0.0063	0.285	0.204	0.0266	0.0059
Muscle ^d	0.0211	0.0022	0.175	0.103	0.0932	0.0111
Skin ^d	0.0431	0.0105	0.368	0.228	0.0820	0.0207
Brain	0.0118	0.0052	0.0866	0.0546	0.00212	0.00082
Heart	0.0562	0.0260	0.377	0.095	0.00253	0.00089
Kidneys	0.151	0.037	1.19	0.64	0.0243	0.0023
Liver	0.290	0.020	2.49	1.63	0.188	0.024
Lung	0.116	0.078	0.710	0.224	0.00647	0.00323
Spleen	0.985	1.034	4.75	3.00	0.0178	0.0142
Adrenals	0.151	0.060	1.35	1.03	0.00031	0.00017
Thymus	0.0317	0.0131	0.243	0.145	0.00031	0.00009
Thyroid	0.310	0.198	2.04	0.92	0.00103	0.00062
Urinary Bladder	0.130	0.045	1.05	0.72	0.00122	0.00023
Pancreas	0.0305	0.0082	0.245	0.145	0.00290	0.00094
Testes	0.0159	0.0027	0.145	0.110	0.00115	0.00029
Cecum	0.322	0.076	2.81	2.07	0.0133	0.0063
Large Intestine	0.181	0.050	1.63	1.35	0.0109	0.0028
Small Intestine	0.140	0.045	1.28	1.10	0.0238	0.0058
Stomach	0.0527	0.0162	0.472	0.388	0.00363	0.00144
Tail	0.128	0.160	1.68	2.34	1.54	2.03

Disposition Summary–Dose Recovered (%)

Sample	Percent Recovered Mean	Percent Recovered SD
Urine + Cage Rinse	42.7	11.4
Urine	3.22	3.01
Cage Rinse	39.5	11.3
Feces	38.0	10.9
Volatile Organics	0.188	0.028
CO ₂	2.05	1.08
GI Content	0.255	0.086
Carcass	1.45	2.98
Tissues	3.58	3.92
Total Recovered	88.1	10.5

^aAll values expressed as mean ± standard deviation (SD) (N = 5). The target dose was 4 mg DTBBA/kg. The actual dose delivered was 3.85 ± 0.36 mg/kg (81.1 ± 7.7 μCi).

^bCPDE = Cumulative percent dose excreted

^c24 hour (h) urine collection included urine present in the urinary bladder at study termination.

^dTissue weights for the dispersed tissues were calculated using the following percentages of body weight: adipose 7.0%, blood 4.9%, muscle 38.4%, and skin 16.5% (International Life Sciences Institute, 1994).

^eTBR = tissue to blood ratio